University of Glasgow | School of Chemistry

MSci with Industrial Placement/ Academic Placement Handbook

Class Handbook 2025-2026 Web Version

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1.0 Guide for Students

The M.Sci. degrees with work/academic placement include a nine-twelve month placement (minimum 9 months, maximum 12 months) in the fourth year of the degree program.

1.1 The Benefits of a Placement

Spending a year working on a project in the chemical industry or in a foreign research laboratory has many benefits for students, which may be summarised as follows:

• It provides an opportunity to broaden your horizons. It is only possible to gain a limited view of what working in the chemical industry is like while at university.

• It provides an opportunity to improve your transferable skills in communication, report writing, information technology, presentation, and team work.

• It increases your general confidence and maturity. These are often as important to prospective employers as academic qualifications and you will therefore improve your chances of securing a job following graduation.

• Many placement hosts seriously consider employing students who do well on placement.

• Much of what you will learn about how a large organisation operates will be equally applicable to a career in other areas of employment outside chemistry.

• It provides the opportunity to be involved with some interesting chemistry of real significance to the company.

• It provides the opportunity to live in a different part of the country or international country for a year.

• It provides the opportunity to earn some money.

• It provides the opportunity to obtain a MChem degree *with* industrial/academic research experience.

• Students who have spent a year in industry gain many skills that are often of great benefit to the execution of final year projects.

• It enables you to make informed decisions about future career directions.

1.2 Progression from Chem-3 to Years 4/5

Students are required to obtain a *minimum of a C3 grade in third year* to progress onto years 4/5 (placement and then final year). It should also be noted that having agreed

to join the MSci programme, transfer to another programme is not possible until the end of the academic year.

1.3 Recruitment and Interviews

Companies organise their recruitment exercises differently. However, they all expect the submission of an application form and/or CV, and usually hold preliminary interviews in Glasgow. Successful candidates are then often invited to the company's site for a further interview and discussion of projects. Some companies also expect candidates to pass numeracy and/or psychometric tests.

The recruitment process starts at the beginning of the third year and it is therefore **important that students wishing to be considered for an industrial placement submit a copy of their CV (by e-mail as a Word attachment), and indications of the preferred area of chemistry (organic, pharmaceutical, biological, analytical, inorganic, physical etc.) and location to the *Placements Class Head* (Professor Richard Hartley) by the end of the first week of the first semester.**

Students will then be invited to discuss their options with the Placements Class Head and be provided with application forms for the companies that meet the requirements identified. Making applications, preparing for and attending interviews can be time consuming, particularly for those who are not initially successful, and securing a placement is largely in students' own hands. Students may seek advice from members of staff on interview technique and details of individual companies. Preparation is important and interviewers will be impressed by an ability to demonstrate some knowledge of the company and its activities as well as a solid knowledge of chemistry. Students who are not offered a placement as quickly as they had hoped should not despair, as the recruitment process usually continues until Easter. Once an offer has been accepted, an agreement/contract setting out the terms of your appointment will be signed. Students will not be able to withdraw from this agreement without **very good** reason.

The best place to start searching for placements is the following website:

https://www.gradcracker.com/search/science/chemistry-work-placements-internships

1.4 Academic Placements

Opportunities exist for students currently studying at the University of Glasgow who would like to study at one of our International partner Universities. We have agreements with many internationally recognised Universities, some of which are listed below. The programme provides an opportunity to develop excellent research skills in an academic research laboratory.

The departmental coordinator for the programme is Prof Richard Hartley (Richard.Hartley@glasgow.ac.uk). Further information can be obtained from the GoAbroad team (GoAbroad@glasgow.ac.uk) in the GU international office. General information can be found on the GU international office website: http://www.gla.ac.uk/international/studyabroadexchange/.

The benefits of involvement in the exchange programme are:

- A challenging new experience
- The opportunity to live in another country and develop language skills
- Gain experience in fundamental research as well as develop a range of transferable skills
- The opportunity for international travel
- The chance to form an international network of friends

International Academic Placements

A placement in an international academic research laboratory can be a very rewarding experience both in terms of practical chemical research and also experiencing a different culture. Students interested in international academic placements should contact Professor Richard Hartley (Richard.Hartley@glasgow.ac.uk) in the first instance.

Applications to the Turing Scheme for financial assistance for academic placements need to be submitted in December. Students are also eligible for the Francis & Marta Johnson Travel Scholarship scheme (eligible countries: Canada and USA) for financial assistance. Students who apply through the Go Abroad application process and are considered for Turing Scheme funding and other travel scholarships on a competitive basis based on their application score. This means you only apply once but are considered for all funding opportunities. The link for applications is here: www.gla.ac.uk/myglasgow/students/goabroad/howtoapply/

1.5 Starting the Placement

The start date of the placement is open to negotiation between the student and the company/academic partner, but most start in July or August. Arrangements for accommodation should be established well ahead of the start date. It may be that the placement will be a continuation of a project following on from a student from the previous year, in which case it may be possible to arrange to take over their accommodation. Alternatively, the company may be able to offer temporary accommodation for the first few weeks to allow time to make arrangements. In any case, it is the student's responsibility to make the necessary contacts with the company and arrangements for accommodation. Advice should be sought from the academic supervisor if problems arise. Once the placement has started, students should contact their academic supervisor by e-mail to confirm the following details:

- Placement start date
- Work mail address
- Work e-mail address
- Work telephone
- Home address
- Home telephone number
- Placement Supervisor's name
- Placement Supervisor's e-mail address
- Placement Supervisor's telephone

1.6 Supervision

Each student is assigned an academic supervisor (i.e., a University of Glasgow academic) and a placement supervisor. The placement supervisor is responsible for overseeing the project, the day-to-day supervision of student's activities and training either directly or indirectly through another member of his/her team. They are also responsible, along with the academic supervisor, for the assessment of the placement. The academic supervisor will visit at least once during the year. If the student's report can be sent to the department at the end of the placement, then the academic supervisor will visit at the beginning of the placement to ensure that student has settled into their placement satisfactorily. If the project report cannot leave the site, then the academic supervisor will visit the student near the end of their placement. If this is the case then the academic supervisor will keep in close contact with the student throughout the year by email. Any problems that have arisen can be discussed and

resolved with the help of the placement supervisor if necessary. The assessment of the placement is described in detail below.

Academic Placement Year Student Supervision Timeline

Academic Traineeship Placement Year Student Supervision (Pastoral Care)

Academic Placement	Pre-placement	Week 1	3 months	6 months	9 months	10 months	Final year week 1
Head of Placement Year	Intro Lecture (~June)			Email brief on report	Email brief on presentation	Collect reports for external examiners	Organise presentations
UoG Supervisor	Email student to provide contact details	Online meeting (Suitability of project, H&S, DL choices, pastoral care)	Visit (outline assessment components, pastoral care)	Online meeting (establish report plan, pastoral care)	Online meeting (final debrief, report Q&A, pastoral care)	Assess report	Attend student's presentation
Placement Supervisor	Provide project outline	H&S training, brief student on aims and objectives	Progress meeting	Progress meeting	Progress meeting	Assess practical & report	

Industrial Placement Year Student Supervision Timeline

Industrial Placement Year Student Supervision (Pastoral Care)

Industrial Placement	Pre-placement	Week 1	3 months	6 months	9 months	12 months	13 months	Final year week 1
Head of Placement Year	Intro Lecture (~June)			Email brief on report		Email brief on presentation	Collect reports for external examiners	Organize presentations
UoG Supervisor	Email student to provide contact details	Online meeting (Suitability of project, H&S, Pastoral care, DL choices)	Online meeting (Pastoral care)	Online meeting (Pastoral care)	Online meeting (establish report plan)	Visit (assess report and mediate practical grade)		Attend student's presentation
Placement Supervisor	Provide project outline	H&S training, Brief on aims and objectives	Progress meeting	Progress meeting	Progress meeting	Assess practical & report		

1.7 In case of difficulty

If you are experiencing difficulty with your placement, there are several resources available to provide assistance.

- **UoG Counselling and Psychological Services** can be reached through this link: https://www.gla.ac.uk/myglasgow/counselling/ or alternatively via the address studentcounselling@glasgow.ac.uk
- If you are experiencing financial issues while on placement, information on available funds can be found via https://www.gla.ac.uk/myglasgow/registry/finance/funds/
- **UoG Disability Services** can be found via the following link https://www.gla.ac.uk/myglasgow/disability/support/ or via support@disability.gla.ac.uk

An A-Z of available student services can be found here: https://www.gla.ac.uk/myglasgow/students/azsearch/

You are also welcome to contact Professor Richard Hartley (Richard.Hartley@glasgow.ac.uk) or via chem-ug-pgt-enquiries@glasgow.ac.uk

1.8 Returning to the Final Year

Most placements finish in July leaving over two months before the start of the final year. Although the placement components have been designed to maintain some familiarity with material from the Chem-3 course, it is inevitable that much will have been forgotten since the previous June. It is therefore essential that students devote some time over the summer to revision of material from earlier in the course. Students may access the departmental web pages. The website contains the course manuals for Chem-4 to enable revision topics to be targeted. It should be remembered however that the manuals available will be from the previous year, although differences should only be minor. Students who do not make an effort to prepare for the final year, will be placing themselves at a significant disadvantage. On the positive side, the experience and training received during the placement should enable rapid progress with the final year research project.

1.9 Components and Assessment of the Placement Year

The assessment of the placement year contributes **20%** to the final degree mark. We are aware that placements, and specifically the nature of research in different subject areas, differ considerably, and the following are intended as **general guidelines**.

The assessment will consist of (using 22 point University assessment Scale):

1. An assessment of the work by the Placement supervisor.
2. A written report, which will be assessed by your University of Glasgow academic supervisor and a second academic staff member on the basis of content and presentation. The School of Chemistry External Examiners will have access to the report unless it is subject to a confidentiality agreement.
3. An oral presentation of the work given to the Department on return to the University.
4. Distance Learning Courses.

	Year Contribution	Final degree contribution
Practical Assessment	29%	5.8%
Report (UofG supervisor)	20%	4.0%
Report (Another UofG academic)	20%	4.0%
Distance Learning	18%	3.6%
Presentation	13%	2.6%

2.0 General Information and Distance Learning Courses

2.1 Objectives of a Placement

•To give students an opportunity to undertake a period of chemistry-related work at a company or University away from Glasgow before graduating

•To gain first-hand experience of scientific research

•To broaden the students outlook and their approach to work in a professional environment

•To facilitate and accelerate the acquisition of transferable skills in a scientific and technical environment

•To enable the student to make a more informed choice regarding future career options

•To allow the students to take part in and observe the transfer of knowledge and techniques and scientific approaches from theory to practice

•To allow the student to form contacts that may enhance their career options

•To develop appropriate behaviour attitudes within the work environment

•To apply and further develop communication and decision making skills

2.2 Learning Outcomes

•Ability to undertake scientific and chemical research in an unfamiliar setting and an awareness of the frontiers of knowledge in that area **1**

•The ability to formulate questions in research and to appreciate how they can be addressed through experimentation and obtain practical skills in research **1, 2**

•To be able to design experiments and interpret them in the context of the question proposed and existing knowledge **1, 2**

•The ability to interact as a team member and be able to communicate effectively with other researchers, both in a group and on an individual basis **1**

•Develop an awareness of the timescale of research and develop an appreciation of the planning and management of research **1, 2**

•The ability to work towards specific goals and objectives **1, 2**

•The ability to undertake several courses of distance learning **3**

•The ability to adapt and acquire new skills appropriate to the research work being undertaken **1, 2**

•Develop an understanding of the organisation in which the placement was taken, for instance its origin, purpose, funding and management structure **1**

•The ability to utilise academic knowledge in a practical environment **1**

•The ability to write up research work, both at the bench and in a formal report **1, 2**

1= Assessed by the placement supervisor,
2= Assessed by the academic supervisor,
3= Assessed by the department via distance learning courses

2.3 Student Expectations

•To receive appropriate supervision and mentorship to allow the student integrate into the organisation and undertake research both individually and as a team member.

•To receive training in the appropriate health and safety aspects and for these issues to be actively monitored throughout the placement.

•To take part in a substantial and significant research programme that will challenge, stretch, motivate and enthuse the student as well as the student to produce a project report that describes a substantial and continuous piece of research; although this could include tasks of a routine nature it is expected that these will be balanced with the research programme.

•For the students training needs to be identified such that they can adequately undertake the programme of work.

•To receive a competitive salary during the placement period.

2.4 Employer Expectations

•To receive adequate information from the University regarding the course requirements for the placement course

•That the University closely works with the employer to ensure that the student is being adequately mentored through two on-site visits by the academic supervisor

•For the University to fully comply with confidentiality agreements pertaining to the research of the student

•That the students will be both willing and capable of putting knowledge into practice and also both identifying knowledge gaps and training needs that will help the student met the employer expectations

•That the student behaves in a professional, well mannered and open minded way paying attention to line management and complying with all the local safety rules

2.5 University Expectations

•That the employer provides rich and rewarding projects that can stretch the academic, practical and interpersonal skills of the student

•That the employer maintains contact with the University reporting the progress of the student and reports any potential problems

•That the student receives appropriate supervision and mentorship to allow the student to integrate into the organisation and undertake research both individually and as a team member

•That the student receives training in the appropriate health and safety aspects and for these issues to be actively monitored throughout the placement

•That the student will take part in a substantial and significant research programme that will challenge, stretch, motivate and enthuse the student as well as the student to produce a project report that describes a substantial and continuous piece of research; although this could include tasks of a routine nature it is expected that these will be balanced with the research programme

•That the students training needs are identified such that they can adequately undertake the programme of work

•That the student will receive a competitive salary during the placement period

2.6 Industrial / Academic Supervisor Guidelines

•Helping the student to be aware of the goals, expectations and job description for the work placement

•Liaising with the Department and reporting immediately on any major problems (poor timekeeping, unsatisfactory work, sickness etc.)

•Aiding the student in forming a learning plan which will help the formative and summative assessments

•Meeting regularly with the student

•Participating in visits by the academic supervisor

•Completing forms to aid in the assessment of the student

2.7 Student Guidelines

•Ensure you understand your specific objectives and work programme

•Understand your line managers role

•Know who your day-to-day supervisor is, and to whom to go for advice if your supervisor is not available

•Ask to have information reconfirmed if you are not sure

•Define your boundaries and responsibilities with your supervisor

•Make sure you understand how your performance will be assessed

•Clarify if you are expected to work overtime

•Familiarise yourself with GLP, GMP, and COSHH; failure to adhere to these strict guidelines will probably invalidate anything that you do

•Be frank about the errors in your work; think about the accuracy, reliability and significance of your results

2.8 University Support for Placement Students

Each student is assigned an academic placement supervisor who acts as an immediate point of contact (should anything go wrong) with the University in order for the problem to be solved. The University and Companies realise that many issues that arise only become problems when left to develop unattended. The placement year head also keeps full details of the student and placement supervisor contact details and ensures that the academic supervisor makes contact with both the student and the placement supervisor at the outset. The academic supervisor will also visit the student during the placement year ensuring that everything is proceeding well. A general format for the visits is fixed around the following:

• Initial meeting with the student and placement supervisor for initial informal discussions to introduce the project and aims for the year.
• A small 15-20 minute talk is presented by the student on aims of the project and any literature review that has been done
• A private meeting between the academic supervisor and the student
• A private meeting between the academic supervisor and placement supervisor
• A tour of the working environment

2.9 Distance Learning Courses

The distance learning courses will be implemented via a web-based system called Moodle, which is the University approved system. Students can use their Departmental user ID and password to log into the system at the following URL: https://moodle.gla.ac.uk/course/view.php?id=52255

Please ensure after completing Registration for your placement year on MyCampus, that you enrol on the appropriate 120 credit course for your degree programme. Additionally, if you do not do this, you will be unable to access the Frontiers of Chemistry Moodle and Distance Learning courses.
The Moodle webpages will become available in January.
Assessment procedures will differ from course to course. During the current year, six courses will be offered and students will be required to complete three of these. **The written component of each course must be submitted to the course organiser by the end of May during your placement year**.

Course titles:
Molecular Symmetry
Quantum Chemistry
Frontiers of Inorganic Chemistry
Biophysical Methods
Advanced Structure Determination
Natural Products Chemistry